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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,135	03/29/2002	Christoph Rickert	270/170	6177

22249 7590 08/14/2003

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EXAMINER

SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 08/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,135

Applicant(s)

RICKERT ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

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The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 18-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claimed composition is not fully enabled in the absence of the amount of component (B) of from 5 to 95 percent of the total weight of components (B) and (C), and the molar ratio of glycidyl groups to carboxyl group in the composition of from 1.3:1 to 1:1.3 as described on page 3, lines 5-7 following the otherwise identical disclosure of the composition as that defined in the claims on page 2, lines 11-26.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foukes et al. in view of Murakami et al.

Foukes et al. discloses a powder coating (col. 2, lines 38-48) comprising between 10% and 90% by weight (col. 4, lines 63-66) of a polyester having an acid number from 30-38 mg KOH/g (col. 3, lines 48-49), triglycidyl isocyanurate as a first crosslinker reactive with the polyester (col. 4, lines 43-44), as little as 1% by weight (col. 5, lines 3-5) of a reactive acrylic copolymer such as an epoxy-functional acrylic copolymer (col. 5, lines 41-43) possessing an equivalent weight of from 600-1000 (col. 5, lines 22-23) and a weight average molecular weight of from 10,000-25,000 (col. 5, lines 5-6), a second crosslinker reactive with the copolymer, and a catalyst (col. 7, line 19).

The claimed (methyl)glycidyl (meth)acrylate (co)polymer (B) is disclosed but not exemplified. Murakami et al. sets forth a powder coating (col. 1, lines 31-38) containing from 60-97% by weight of a polyester with an acid value of from 15-200 mg KOH/g, from 3-40% by weight of a glycidyl-containing acrylic polymer having an epoxy equivalent of from 130-2000 and a number average molecular weight of from 300-5000 (col. 3, lines 7-11), a polyepoxy resin such as diglycidyl terephthalate (col. 3, line 68) or triglycidyl isocyanurate (col. 4, line 4), and a catalyst (col. 4, lines 35-37).

It would have been obvious to employ the glycidyl-containing acrylic polymer of Foukes et al. and Murakami et al. as the reactive acrylic copolymer of Foukes et al. in order to provide "superior surface characteristics such as smoothness, gloss and brightness and outstanding weatherability (Murakami et al., col. 1, lines 19-29)."

Claims 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al., Japanese Patent Nos. 57-108166 and 1-313573 and German Patent No. 4,330,404.

Murakami et al. and the Japanese and German patents espouse coating formulations prepared from polyesters with acid numbers embracing the claimed parameters, diglycidyl terephthalate or triglycidyl isocyanurate, and as little as 3% or parts by weight (Murakami et al. and Japanese '166, respectively), 5 parts by weight (Japanese '573) and 3.7% by weight (German patent) of a (methyl)glycidyl (meth)acrylate (co)polymer.

The claimed accelerator (D) is not recited in the abstract of the Japanese and German patents. It would have been obvious to incorporate the catalyst of

Murakami et al. into the blends of the Japanese and German patents in order "to promote the crosslinking reaction (Murakami et al., col. 4, lines 35-37)."

The claimed level of from 0.2-2 percent by weight of the (methyl)glycidyl (meth)acrylate (co)polymer is not recited. It would have been obvious to optimize the proportion of (methyl)glycidyl (meth)acrylate (co)polymer of Murakami et al. and the Japanese and German patents to within the claimed range in order emphasize the adhesion contributed by the polyester (Murakami et al., col. 1, lines 9-14) and the corrosion resistance and mechanical strength displayed by the diglycidyl terephthalate or triglycidyl isocyanurate (Murakami et al., col. 3, lines 58-59).

According to MPEP § 2144.05, section II. Optimization of Ranges,

A. Optimization Within Prior Art Conditions or Through Routine Experimentation:

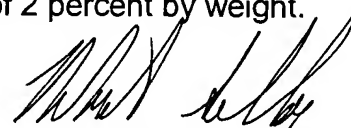
"Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical."

(*In re Aller*, 105 USPQ 233, 235, CCPA 1955 and *In re Hoeschele*, 160 USPQ 809, CCPA 1969).

The evidence presented in Table 1a on page 12 of the specification does not show the closest prior art compositions of the prior art wherein the polyester, glycidyl methacrylate copolymer and polyglycidyl compound is present. Comparison Examples E, F and G are not representative of the closest prior art since either the glycidyl methacrylate copolymer (i.e. Comparison Example E) or the diglycidyl terephthalate (i.e. the DGT of Comparison Examples F and G are not included).

The amounts of polyester and diglycidyl terephthalate have not been held constant to isolate the effect of the claimed concentration of glycidyl methacrylate copolymer. Furthermore, the showings are not commensurate in scope with the claims regarding a representative sampling of the claimed range including the lower limit of 0.2 percent by weight up to an order of magnitude greater content of 2 percent by weight.

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Art Unit 1712